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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/866,577	05/29/2001	Kari Niemela	P 280324 T299053US/Pyk/	4481
909	7590	03/11/2005	EXAMINER	
PILLSBURY WINTHROP, LLP			LEE, CHI HO A	
P.O. BOX 10500			ART UNIT	
MCLEAN, VA 22102			PAPER NUMBER	
			2663	

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/866,577

Applicant(s)

NIEMELA ET AL.

Examiner

Andrew Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/2/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4, 6-8, 14-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 4, 6-8, are 14-16, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 4, it is unclear when the channels are allocated un-symmetrically. The claim should recite when the channels are allocated un-symmetrically opposed to symmetrically.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 5, 9, 10, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reilly U.S. Patent Number 5,953,668 in view of Budka et al U.S. Patent Number 6,330,288.

Re Claim 1, Reilly teaches in fig. 2 (See col. 2, lines 56-65), mapping between air interface traffic (Um) channels and Abis-interface traffic channels connections that is dynamically assigned (allocating fixedly a certain number of channels; allocating dynamically), wherein the channels assigned encompasses base-station specific operations such as CH-MGMT, maintenance signaling such as HO-HL, and transceiver-specific telecommunication signaling such as call setup from the MS. Reilly fails to explicitly teach "packet data transfer, the amount of packet data varying according to the modulation and coding scheme used on a Um interface. One skilled in the art recognizes that the GPRS system supports GSM air interface and Reilly supports GSM air interface, hence analogous art and combinable. In particular (See col. 3, lines 4-17), Budka teaches a transmitter for selecting strongest a coding and modulation scheme that results in the transmitting the number of data packets based on the CQM measurements whereby the Um interface is GSM based. One skilled in the art would have been motivated Budka select the strongest coding and modulation scheme in Budka to improve throughput (See fig. 1). Therefore, it would have been obvious to one ordinary skilled to combine the teaching of Budka into the teaching of Reilly.

Re Claim 9, refer to Claim 1, Reilly teaches in fig. 3, the base station 40; transceivers 43 & 49 implementing a Um interface; Encoder 45 & Decoder 46 collectively the codec; a DSP (a packet control unit) for the Abis interface.

Re Claims 2, 5, 10, 13, refer to Claim 1, DRM of Reilly inherently allocated entirely dynamically according to the transfer need to plurality of MS (different Um interface connections).

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5. Claims 3, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reilly U.S. Patent Number 5,953,668 in view of Budka et al U.S. Patent Number 6,330,288 as applied to Claim 1 above and further in view of Hjelm et al U.S. Patent Number 5,978,368.

Re Claims 3, 11, Budka teaches Encoder 45 and Decoder 46 collectively the codec for each transmission channels. Reilly in view of Budka fails to explicitly teach "at least one transmission channel is continuously kept allocated to each channel codec unit allocated to Um interfaces packet data transfer.". However, Hjelm teaches in fig. 1, the GPRS IDLE list 56 whereby the channels are reserved for packet data transfer as opposed the GSM idle list reserved for circuit voice transfer (See col. 6, lines 13-49), wherein the GPRS IDLE list is reserved (continuously kept allocated) for packet service as opposed to non-packet service channels in the GSM idle list. One skilled in the art would have motivated to reserve available resources to guarantee transmission channels for packet data service.

6. Claims 4, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reilly U.S. Patent Number 5,953,668 in view of Budka et al U.S. Patent Number 6,330,288 as applied to Claim 1 above and further in view of Malmgren et al U.S. Patent Number 6,334,057.

Re Claims 4, 12, Reilly in view of Budka fails to explicitly teach allocated the uplink and downlink asymmetrically. However, Malmgren teach channel allocation in a TDMA system with asymmetric uplink and downlink traffic (See fig. 5). One skilled in

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the art would have Malmgren to allocated uplink and downlink asymmetrically to minimize intercell interference (See col. 4, lines 44-48).

Allowable Subject Matter

7. Claims 6-8 and 14-16 are would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

In combination with claims 1 and 6; claims 9 and 14, prior art fails to teach the a master channel comprising information on the number and location of other transmission channels used for transferring packet data.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Lee whose telephone number is 571-272-3130. The examiner can normally be reached on Monday to Friday from 8:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AI

2/28/05

4/28/05
PATENT EXAMINER